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| BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314 | | | VERBITSKY, GAIL KAPLAN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2859 | |

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/774,430

Applicant(s)

CHU, KUAN-YU

Examiner

Gail Verbitsky

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: two attachments.

DETAILED ACTION

Claim Objections

1. Claims 1-5 are objected to because of the following informalities:

Claim 1: A) "A", "A" and "T" in the beginning of lines 2 and 5 and 7 should be replaced with --a--, --a-- and --t-- respectively because only the very first letter of the claim can be capitalized.

B) "the" before "said head section" in lines 7, 9 and "said tube section" in lines 4 and 10 should be deleted.

C) Perhaps "The features of which are:" in line 7 should be replaced with --wherein, the temperature sensing tube characterized in that--, in order to clearly described the claimed invention.

D) "the center" makes the claim language confusing because it is not clear what applicant means. Perhaps applicant should add --of said tube -- after "the center".

Claim 2: A) "the" before "said outer conoidal hem" in lines 3, 4, 5 should be deleted,

B) "the" before "said tube member" in lines 2-3 should be deleted,

C) "the" before "said neck section" in lines 5-6 should be deleted.

Claim 3: "the" before "said neck" in line 2 and "said bottom" in line 3 should be deleted.

Claim 4: "the" before "said passage" in line 2 should be deleted.

Claim 5: "the" before "said tube" in line 2 and before "said bottom" in line 3 should be deleted.

Claims 2-5: "Claim" in line 1 should be replaced with --claim-- because only the very first letter of the claim can be capitalized.

Art Unit: 2859

Claims 2-5: Perhaps applicant should replace the preamble "As mentioned in claim 1 of the temperature sensing tube of the invention herein" in lines 1-2 of each claim with – The temperature sensing tube according wherein—in order to clearly describe in the invention.

Claim 2: it appears that the preamble of the claim is directed to an apparatus; however, the body of the claim is directed to the method steps of manufacturing the apparatus of claim 1. Therefore, perhaps applicant should replace the preamble of claim 2 with –A method of manufacturing the temperature sensing tube of claim 1 wherein, said head section is extended from said tube member to form said outer conoidal hem,-- . Is this a proper interpretation of the invention? Furthermore, please note, that since claim 2 describes the steps of manufacturing of the temperature sensing tube, the Examiner, in her rejection on the merit, considers claim 2 as a method claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In this case, the limitation stating "the said outer conoidal hem inner conoidal hem" in line 5 makes the claim language confusing because it is not clear what applicant means. Perhaps applicant should modify this limitation as follows:

-- said outer conoidal hem along an inner conoidal hem--. Is this a proper interpretation of the invention? Furthermore, please note, that the Examiner, in her rejection on the merit, interprets said limitation as modified by the Examiner.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gustin (U.S. 5753835) in view of the Prior art admitted by applicant in Figs. 1-2 of the disclosure of the instant application [hereinafter Prior art].

Gustin discloses in Fig. 1 a device comprising a tube having a head section A having an outer conoidal hem/ flange/ edge 60 formed along the circumference at a lower extend, a neck section B is formed at the center of the tube allowing a passage (for lead wires). A lower portion D of the tube is hollow and also allows a continuous passage of said leads. As shown in Fig. 1, the head section and the tube section are made / forged of one piece and constitute a unitary structure, while the neck and hem sections are formed as extensions from the tube.

(The numerals A-D have been added by the examiner, see attachment # 1 to the Office Action) .

Gustin does not teach an aperture in a bottom of the tube, as stated in claim 1, in combination with the remaining limitations of claims 3-5.

Prior art discloses a device having a tube with an opening/ aperture at the bottom of the tube.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make an opening, as taught by Prior art, in the tube of the device, disclosed by Gustin, so as to allow the gases whose temperature is to be measured a direct contact with a temperature sensor.

6. Claims 1, 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walls et al. (6619837) [hereinafter Walls] in view of the Prior art.

Walls discloses in Fig. 6 a device comprising a tube having a head section A having an outer conoidal hem/ flange/ edge B formed along the circumference at a lower extend, a neck section 48 is formed at the center of the tube allowing a passage. A lower portion C of the tube is hollow and also allows a continuous passage. As shown in Fig. 6, the head section A and the tube section are made / forged/ connected of one piece and may be considered as a one-piece structure (unitary structure), while the neck and hem sections are extended (formed as extensions) from the tube. As shown in Fig. 6, said neck section including a gradually reduced neck base which is larger than and formed upward from said bottom section, and continues extending above into a neck body 11 having an approximately equal tubular diameter.

Art Unit: 2859

For claim 4: The passage through the neck section has a portion D with a uniform (nominally constant) diameter and a portion E of a conical hole of graduated reduction from the bottom e1 to the top e2.

(The numerals A-E, e1, e2 have been added by the Examiner, see attachment # 2 to the Office action).

Although it appears from Fig. 6 that the tube is open in its distal end, Walls does not teach the opening/ aperture, as stated in claim 1, and that the aperture is of a particular shape, as stated in claim 5.

Prior art discloses a device having a tube with an opening/ aperture at the bottom of the tube.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make/ modify an opening, as taught by Prior art, in the tube of the device, disclosed by Walls, so as to allow the gases whose temperature is to be measured a direct contact with a temperature sensor.

Allowable Subject Matter

7. Claim 2 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim 2 (as best understood by the Examiner) would be allowable because the prior art fails to teach a method wherein after the head section is extended from the tube member to form the outer conoidal hem, the peripheral edge of the outer conoidal

Art Unit: 2859

hem is bent into a U-shape such that it overlaps against said conoidal hem along an inner conoidal hem, in combination with the remaining limitations of claim 1 and 2.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods.

Any inquiry concerning this communication should be directed to the Examiner Verbitsky who can be reached at (571) 272-2253 Monday through Friday 8:00 to 4:00 ET.

GKV

Gail Verbitsky 
Primary Patent Examiner, TC 2800

December 06, 2004